

CLAIMS

- [c1] 1. A wireless communication system comprising:
a first transceiver;
a second transceiver;
a third transceiver in communication with the first transceiver; and
a controller configured to effectuate a soft handoff from the first transceiver to the second transceiver using a set of optimum parameters that are determined based on a current position of the third transceiver.
- [c2] 2. The system of claim 1 wherein the controller is further configured to determine the current position of the third transceiver.
- [c3] 3. The system of claim 2, wherein the current position includes a position of a sector within a cell coverage area.
- [c4] 4. The system of claim 1 wherein the set of optimum parameters includes a set of optimum system-access parameters and a set of optimum soft-handoff parameters.
- [c5] 5. The system of claim 4 wherein the controller is further configured to determine the set of optimum soft handoff parameters.
- [c6] 6. The system of claim 4 wherein the controller is further configured to determine the set of optimum system-access parameters.
- [c7] 7. A mobile unit comprising:
a receiver unit configured to receive a set of optimum system-access parameters determined based on a current position of the mobile unit; and
a controller configured to control the mobile unit based on the received set of optimum system-access parameters.

- [c8] 8. A mobile unit comprising:
a receiver unit configured to receive a set of optimum soft-handoff parameters determined based on a current position of the mobile unit; and
a controller configured to effectuate a soft handoff from a first base station to a second base station based on the received set of optimum soft-handoff parameters.
- [c9] 9. The mobile unit of claim 8 wherein the controller is further configured to determine the current position of the mobile unit.
- [c10] 10. The mobile unit of claim 9 wherein the current position includes a position of a cell coverage area.
- [c11] 11. The mobile unit of claim 9 wherein the current position includes a position of a sector within a cell coverage area.
- [c12] 12. The mobile unit of claim 8 wherein the receiver unit is further configured to receive a set of optimum system-access parameters determined based on the current position of the mobile unit.
- [c13] 13. The mobile unit of claim 12 further comprising means for controlling the performance of the mobile unit based on the received set of optimum system access parameters.
- [c14] 14. A base station comprising:
a transmitter unit configured to transmit a set of optimum system-access parameters determined based on a current position of a mobile unit; and
a controller configured to control the mobile unit based on the set of optimum system-access parameters.

- [c15] 15. A base station comprising:
- a transmitter unit configured to transmit to the mobile unit a set of optimum soft-handoff parameters determined based on a current position of the mobile unit in a first coverage area; and
 - a controller configured to effectuate a soft handoff from the first coverage area to a second coverage area based on the set of optimum soft-handoff parameters.
- [c16] 16. The base station of claim 15 wherein the controller is further configured to determine the current position of the mobile unit in the first coverage area.
- [c17] 17. The base station of claim 15 wherein the first coverage area includes a cell coverage area.
- [c18] 18. The base station of claim 15 wherein the first coverage area includes a sector within a cell coverage area.
- [c19] 19. The base station of claim 15 wherein the controller is further configured to determine the set of soft-handoff parameters.
- [c20] 20. The base station of claim 15 wherein the transmitter unit is further configured to transmit a set of optimum system-access parameters determined based on the current position of the mobile unit in a first coverage area.
- [c21] 21. The base station of claim 20 wherein the controller is further configured to control the performance of the mobile unit based on the set of optimum system-access parameters.
- [c22] 22. The base station of claim 21 wherein the controller is further configured to determine the set of optimum soft-handoff parameters and a set of optimum system-access parameters.
- [c23] 23. A method for effectuating soft handoff, comprising:

determining a current position of a mobile unit in a first coverage area;
determining a set of optimum parameters based on the current position
of the mobile unit; and
effectuating a soft handoff from the first coverage area to a second
coverage area using the set of optimum parameters.

[c24] 24. The method of claim 23 wherein the determining the set of optimum
parameters includes determining a set of optimum system-access parameters
and determining a set of optimum soft-handoff parameters.

[c25] 25. A method for updating a current set of parameters in a mobile unit,
comprising:
determining a current position of the mobile unit in a first coverage area;
determining a set of optimum parameters based on the current position
of the mobile unit; and
updating a current set of parameters in the mobile unit with the set of
optimum parameters.

[c26] 26. The method of claim 25 wherein the determining the set of optimum
parameters includes determining a set of optimum system-access parameters
and a set of optimum soft-handoff parameters.

[c27] 27. The method of claim 25 wherein the current position includes a sector
within a cell coverage area.

[c28] 28. A method for restricting mobility of a mobile unit in a telecommunication
system, the method comprising:
determining a current position of the mobile unit;
determining a set of parameters based on the current position of the
mobile unit; and
preventing the mobile unit from performing based on the set of
parameters if the current position of the mobile unit is in a restricted zone.

- [c29] 29. The method of claim 28 wherein the determining the set of parameters includes determining a set of system-access parameters and a set of handoff parameters.
- [c30] 30. The method of claim 29 wherein the preventing the mobile unit from performing includes preventing the mobile unit from effectuating a handoff.
- [c31] 31. The method of claim 29 wherein the preventing the mobile unit from performing includes preventing the mobile unit from system access.
- [c32] 32. A computer readable medium embodying a method for effectuating soft handoff, the method comprising:
determining a current position of a mobile unit in a first coverage area;
determining a set of optimum parameters based on the current position of the mobile unit; and
effectuating a soft handoff from the first coverage area to a second coverage area using the set of optimum parameters.
- [c33] 33. A computer readable medium embodying a method for updating a set of parameters in a mobile unit, the method comprising:
determining a current position of the mobile unit;
determining a set of optimum parameters based on the current position of the mobile unit; and
updating a current set of parameters in the mobile unit with the set of optimum parameters.
- [c34] 34. A computer readable medium embodying a method for restricting mobility of a mobile unit in a telecommunication system, the method comprising:
determining a current position of the mobile unit;
determining a set of parameters based on the current position of the mobile unit; and
preventing the mobile unit from performing based on the set of parameters if the current position of the mobile unit is in a restricted zone.

- [c35] 35. An apparatus for effectuating soft handoff, comprising:
- means for determining a current position of a mobile unit in a first coverage area;
 - means for determining a set of optimum parameters based on the current position of the mobile unit; and
 - means for effectuating a soft handoff from the first coverage area to a second coverage area using the set of optimum parameters.
- [c36] 36. An apparatus for effectuating soft handoff, comprising:
- a memory unit; and
 - a digital signal processing (DSP) unit communicatively coupled to the memory unit, the DSP being capable of:
 - determining a current position of a mobile unit in a first coverage area;
 - determining a set of optimum parameters based on the current position of the mobile unit; and
 - effectuating a soft handoff from the first coverage area to a second coverage area using the set of optimum parameters.
- [c37] 37. An apparatus for updating a set of parameters in a mobile unit, comprising:
- means for determining a current position of the mobile unit;
 - means for determining a set of optimum parameters based on the current position of the mobile unit; and
 - means for updating a current set of parameters in the mobile unit with the set of optimum parameters.
- [c38] 38. An apparatus for updating a set of parameters in a mobile unit, comprising:
- a memory unit; and
 - a digital signal processing (DSP) unit communicatively coupled to the memory unit, the DSP being capable of:

determining a current position of the mobile unit;
determining a set of optimum parameters based on the current position of the mobile unit; and
updating a current set of parameters in the mobile unit with the set of optimum parameters.

[c39] 39. An apparatus for restricting mobility of a mobile unit in a telecommunication system, comprising:

means for determining a current position of the mobile unit;
means for determining a set of parameters based on the current position of the mobile unit; and
means for preventing the mobile unit from performing based on the set of parameters if the current position of the mobile unit is in a restricted zone.

[c40] 40. An apparatus for restricting mobility of a mobile unit in a telecommunication system, comprising:

a memory unit; and
a digital signal processing (DSP) unit communicatively coupled to the memory unit, the DSP being capable of:
determining a set of parameters based on the current position of the mobile unit; and
preventing the mobile unit from performing based on the set of parameters if the current position of the mobile unit is in a restricted zone.

[c41] 41. A method for optimizing systems parameters in a telecommunication system, including a mobile unit and an intelligent system, the method comprising:

tracking performance of the mobile unit in a geographical area by the intelligent system; and
optimizing the system parameters based on the performance of the mobile unit if the mobile unit is re-traversing the geographical area.

[c42] 42. A computer readable medium embodying a method for optimizing systems parameters in a telecommunication system, including a mobile unit and an intelligent system, the method comprising:

tracking performance of the mobile unit in a geographical area by the intelligent system; and

optimizing the system parameters based on the performance of the mobile unit if the mobile unit is re-traversing the geographical area.

[c43] 43. An apparatus for optimizing systems parameters in a telecommunication system, comprising:

means for tracking performance of a mobile unit in a geographical area by the intelligent system; and

means for optimizing the system parameters based on the performance of the mobile unit if the mobile unit is re-traversing the geographical area.

[c44] 44. An apparatus for optimizing systems parameters in a telecommunication system, comprising:

a memory unit;

an intelligent system communicatively coupled to the memory unit, the intelligent system being capable of tracking performance of a mobile unit in a geographical area; and

a digital signal processing (DSP) unit communicatively coupled to the memory unit, the DSP being capable of optimizing the system parameters based on the performance of the mobile unit if the mobile unit is re-traversing the geographical area.